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1. An airgap type etalon comprising:
  - a fixing member having at least one flat surface;
  - a first parallel member, which is transparent to incident light and has parallel flat surfaces, one of said parallel flat surfaces thereof being joined to said flat surface of said fixing member;
  - at least one second parallel member, which has parallel flat surfaces in which a distance between said parallel flat surfaces thereof is greater than a distance between said parallel flat surfaces of said first parallel member, and has an expansion coefficient different from that of said first parallel member, one of the flat surfaces of said second parallel member being joined to said flat surface of said fixing member so as to surround the outer periphery of said first parallel member; and
  - a transparent member, which is transparent to incident light into and has opposite flat surfaces, one of said flat surfaces thereof being joined to the other flat surface of said second parallel member, said other flat surface being opposite to the joined surface to said fixing member;wherein a Fabry-Perot interferometer is formed based on an airgap positioned between the flat surface of said first parallel member and the flat surface of said transparent member facing each other.
2. An airgap type etalon of claim 1, wherein
  - said fixing member has a through-hole for passing light therethrough,
  - said first parallel member is formed with an antireflection coating on one flat surface thereof, and this flat surface formed with said antireflection coating is joined to said flat surface of said fixing member around said through-hole, and
  - said transparent member is formed with an antireflection coating on the other flat surface thereof opposite to the joined surface to said second parallel member.
3. An airgap type etalon of claim 1, wherein
  - said fixing member is transparent to incident light, and is formed with an antireflection coating on a surface opposite to said flat surface thereof, and
  - said transparent member is formed with an antireflection coating on the other flat surface thereof opposite to the joined surface to said second parallel

4. An airgap type etalon of claim 1, wherein reflection augmenting coatings are formed on said flat surfaces of said first parallel member and said transparent member facing each other, respectively.

6. An airgap type etalon of claim 5, wherein temperature dependency of said transmission wavelength characteristic is set to be  $1\text{pm}/^{\circ}\text{C}$  or less.

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9. A wavelength locker employing said wavelength detecting apparatus of claim 8, said wavelength locker comprising:  
a semiconductor laser diode the wavelength of which varies proportionally

a controlling portion for feedback controlling the temperature of said semiconductor laser diode so that the mathematical division result between said electrical signal from said first light receiving portion and said electrical signal from said second light receiving portion becomes constant, to thereby fix the wavelength of the monochromatic light at a specific wavelength.

- wherein at least one of said plurality of optical filters is constituted by employing said airgap type etalon of claim 7.

12. A wavelength characteristic varying apparatus comprising:

wherein said plurality of optical filters are constituted by employing at least two airgap type etalons of claim 7, and the shift directions of temperature

13. An optical amplifier employing said wavelength characteristic varying apparatus of claim 12, in which a gain wavelength characteristic of said optical amplifier changes corresponding to an operating condition,

wherein said wavelength characteristic varying apparatus has a transmission wavelength characteristic reverse to a change of the gain wavelength characteristic of said optical amplifier corresponding to the operating condition, so that the gain wavelength characteristic of said optical amplifier is flattened irrespectively of the operating condition.

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